

DOCUMENT RESUME

ED 429 558

IR 019 467

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TITLE Giving Psychology Away through Technology-Based Distance Instruction.
PUB DATE 1998-08-00
NOTE 10p.; Paper presented at the Annual Convention of the American Psychological Association (106th, San Francisco, CA, August 14-18, 1998).
PUB TYPE Reports - Evaluative (142) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Access to Education; Computer Uses in Education; *Distance Education; Educational Principles; *Educational Technology; Educational Trends; Guidelines; Higher Education; *Information Technology; *Instructional Design; Lifelong Learning
IDENTIFIERS Learner Centered Instruction; *Technology Based Instruction

ABSTRACT

This paper outlines key features of good distance education, drawing upon principles for good practice in undergraduate education and recorded experiences with distance learning programs in a number of content areas. The first section defines distance education and provides a historical perspective. Five interrelated phenomena that have accompanied the rapid growth of information technology to promote widespread use of distance learning are described in the second section, including the emergence of lifelong learning, learning centered instruction, providing access, rapid advances in technology and the psychology of learning, and increased interest in part-time study. The third section offers recommendations for good distance education, and the last section summarizes the following lessons learned as a result of offering both undergraduate and graduate courses via distance learning: include adequate details in the syllabus; break the course into modules; conduct periodic assessment; encourage contact between students and faculty; and promote interaction between students. One figure presents a historical perspective of the phases of distance education. (DLS)

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Giving Psychology Away Through Technology-Based Distance Instruction

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Presented at

The 106th Annual Convention of the American Psychological Association

San Francisco, California

August 18, 1998

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Abstract

The term distance education refers to any formal approach to learning in which a majority of instruction occurs while educator and learner are at a distance from one another. Distance education has been a part of educational experience for well over 100 years, with the print-based correspondence study in the late 1800's. However, a number of interrelated phenomena including the rapid growth of information technology have contributed to the popularity of distance instruction in recent years. Drawing upon the seven principles for good practice in undergraduate education and upon our experience with distance learning programs in a number of content areas we have outlined key features of good distance education. In the concluding section of the paper we share some of the lessons we have learned as a result of offering both undergraduate and graduate programs via distance learning.

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What is distance education?

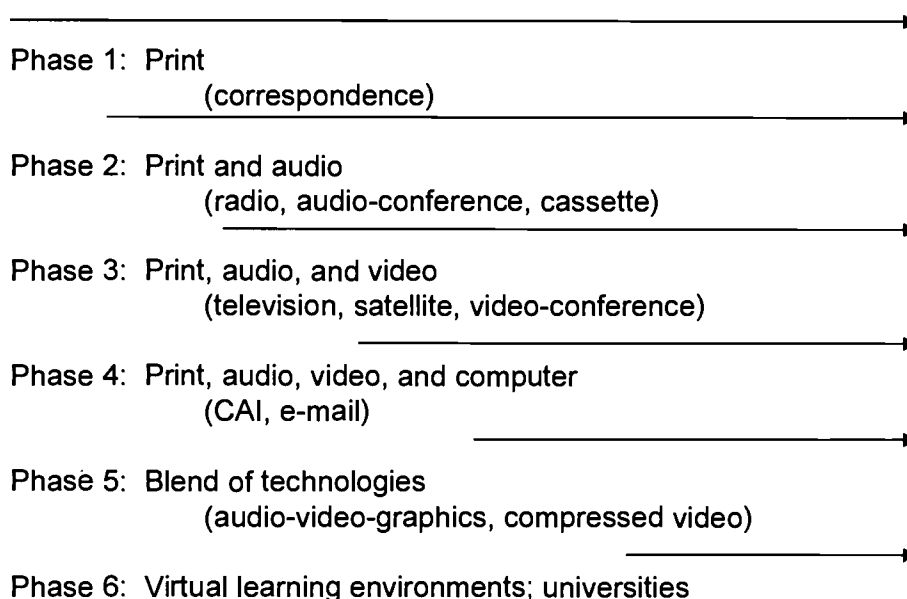
Since distance education is practiced in many settings in many ways, it will be beneficial to begin this paper by defining what we mean by the term distance education.

Verduin & Clark (1991) define distance education as any formal approach to learning in which a majority of instruction occurs while educator and learner are at a distance from one another.

Distance learning is not new; with the development of the postal service, commercial correspondence colleges provided distance education in the 19th century, but the advent of information technology, and particularly the Internet, has profoundly altered the character of distance learning by providing the capability for direct and immediate interactions among teachers, learners, and knowledge.

Figure 1.

Historical Perspective: Phases of Distance Education



While it may surprise you to see correspondence study included in the above chart, it is important to note that what we now commonly refer to as distance education is actually an electronic version of the original print-based curriculum. Learning at a distance can now be accomplished by a variety of means including audio-conference, video-conference, and computer-conferencing. It

should be noted that learning theories that have been found helpful in the traditional classroom are applicable to distance education as well.

Essentially there are two approaches to distance education: one targets individual learning; the other focuses on group teaching. The most important difference between them is based on synchronous communication and asynchronous communication. In the former, teachers and students must communicate in real time whereas the later approach creates the university in students' homes so they can study there when it suits them. In the group teaching scenario, the teacher communicates with students in a network of classrooms in real time; it is a teacher centered form of education. Under the individual learning scenario, the campus is re-created in thousands of homes. This means that it has to be a student-centered approach. In designing instructional materials, it is essential to figure out what constitutes an effective home learning environment for the student (Daniel 1997).

Why distance learning?

Five interrelated phenomena have accompanied the rapid growth of information technology to promote widespread use of distance learning:

1. The emergence of lifelong learning

In the information economy, the rapid pace of technological change means that education must be updated throughout our working lives. People need to increase their learning power to sustain their earning power. Lifelong learning is the norm that is augmenting and in some cases displacing school-age education (David 1995). Forces that have made such learning a necessity:

- More jobs and careers require frequent learning;
- More people frequently change jobs and careers and hence need to develop additional skills and knowledge;
- People are living longer and find that learning adds quality to their lives;
- Technological and economic progress enables people to work shorter hours and allows them to have more time for other activities including learning.

The trends outlined above also point to the changing nature of the student body. Indeed, the number of non-traditional students continue to increase in both undergraduate and graduate programs.

2. Learning Centered Instruction

Given the ongoing generation of new knowledge on the one hand and increased interest in learning outcomes and self-directed learning on the other, professors' role is not to provide information, but to provide guidance to their students. They have to nudge students through the educationally crucial task of processing information, problem solving, and analysis and synthesis of ideas (Swain 1997).

3. Providing Access

Educational access should not be impeded by barriers of place and time. Our experience in Northeastern Minnesota indicates that a substantial segment of place-bound adults still do not have access to graduate level education in curriculum and instruction, nursing, physical therapy, and other professional fields. Without such education many working adults either cannot maintain their license or cannot move to the next step in their career ladder. Distance education provides a cost-effective approach to increase their access to high quality education.

4. Rapid advances in technology and the psychology of learning

The combination of technologies coupled with an understanding of the learning process is changing the relationship between people and knowledge. These developments focus not simply on technical format, but on the entire presentational style, the user interface, the accessibility of the medium, and the degree of interactivity. Indeed these advances have provided the opportunity to change the emphasis from the classroom and teaching to the individual and learning (Daniel 1997). Universities are discovering that with good learning materials, effective networks, and proper support, students can learn better at home than in class (Daniel 1997). In teaching psychology courses on statistics and research methods through distance instruction, we have found that their grade distribution is similar to that for on-campus offerings of these courses (Mehrotra 1996).

5. Increased interest in part-time study

As Romiszowski (1997) has pointed out, there is a significant swing away from the formal, campus-based degree program to part-time study especially by those who are still employed in the profession of their choice. Available evidence indicates that part-time study has become markedly attractive with the advent of many possibilities for technology-based self study and on-line distance education. New education providers are springing up, offering new and flexible study alternatives.

What defines good distance education?

Whether the course is delivered face-to-face or at a distance, critical instructional elements remain unchanged. These elements include organizing, planning, understanding student needs and characteristics, providing up-to-date content, and using instructional approaches that maximize the achievement of student learning outcomes. Drawing upon the seven principles for good practice in undergraduate education (Chickering & Gamson 1987; Chickering & Ehrmann, 1996) and upon our experience in designing, implementing, and evaluating distance learning courses in a number of content areas, we offer the following recommendations:

- Outline student learning outcomes;
- Promote interaction between faculty and students and among students;
- Ensure that up-to-date knowledge and content are included;
- Use a combination of media and instructional methods to encourage active learning;
- Provide students with timely and informative feedback;
- Offer advising and counseling support;
- Monitor student retention and satisfaction; and
- Assess the achievement of expected outcomes.

A recent report prepared by the Institute for Higher Education Policy (1998) provides specific examples to illuminate the array of approaches that have been developed to assure quality control in distance learning programs. As these examples indicate, effectively teaching at a distance requires specialized skills, abilities, and training. This means that adequate training prior to teaching at a distance and continuing support throughout the delivery process are essential for ensuring long-term instructional success in distance education.

What lessons have we learned?

In this section we outline some of the lessons we have learned as a result of offering both undergraduate and graduate courses via distance learning. Some of these courses use videotapes, some are offered on internet, and others simply use print materials.

1. **Include adequate details in the syllabus.** We have found that students at a distance generally need more information about the course, its instructor, their classmates, and the home institution than on-campus students. The syllabus is an excellent place to include information about course objectives, resources, assignments, assessment procedures, grading policies, due dates, etc. In addition, it is also useful to include (a) a letter to the students welcoming them to the course and providing an orientation to what you plan to cover and (b) a short biographical sketch and picture of yourself.

2. **Break the course materials into modules.** Depending upon the course content, divide the material into do-able modules with due dates, assignments, and learning exercises. This allows students to monitor the progress they are making rather than taking a hit at the end of the semester.
3. **Conduct periodic assessment.** Our experience indicates that breaking the material into manageable modules and giving a retention test after each module is significantly more effective than giving a single exam at the end of the semester. In addition, students appreciate receiving prompt and detailed feedback on their exams, assignments, and other projects rather than simply a letter grade upon completing the course.
4. **Encourage contact between students and faculty.** Given the role played by student-faculty contact in promoting student motivation and involvement, it is beneficial to use communication technologies to increase access to faculty members, to help them share useful resources, and to provide for joint problem solving and shared learning. We have found that such technologies can strengthen faculty interactions with all students, but especially with shy students. Many students find it easier to discuss values and personal concerns via electronic mail than orally in large classes; others prefer to contact faculty via toll free telephone; and some of them like to have face-to-face meetings with the instructor. We have found it useful to provide them with a variety of options to maintain contact with the instructor.
5. **Promote interaction among students.** In a number of graduate programs our students are eager to participate in study teams, collaborative learning, and group projects. Providing opportunities for ongoing interaction among students has been facilitated by electronic mail, has allowed them to get to know their classmates, and has led to high retention rates. Our experience indicates that relationships that develop as a result of collaborative learning often continue long after the students graduate from graduate programs.

It is important to remember that students do not learn from the technology. They learn from competent instructors who make effective use of technology. As indicated earlier in this paper, students learn as well and as much from distance learning classes as from traditional classes. We have learned that when teaching at a distance via any technology, whether it is a two-way or one-way video, broadcast, or the world wide web, it is essential to make certain modifications in order to provide high quality presentations. This means that instructors need adequate preparation time to ensure that their courses run smoothly.

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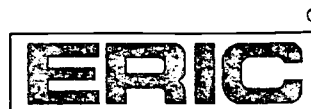
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